

## A stop sign: on India's growing carbon emissions

This article is related to General Studies  
Paper-III (Environment & Ecology)

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### "India must raise its ambition on reduction in carbon emissions."

It is no surprise that the International Energy Agency found that India's carbon emissions grew by 4.8% during 2018, in spite of the national focus on climate change in energy policy. There is wide recognition of the fact that Indians are not historically responsible for the problem, and it is the rich nations led by the U.S. that have pumped in the stock of carbon dioxide linked to extreme climate impacts being witnessed around the globe.

As the IEA points out, India's emissions have grown, but per capita they remain less than 40% of the global average. Equity among nations is therefore at the centre of the discussion on energy emissions, and the principle of common but differentiated responsibilities is central to the UN Framework Convention on Climate Change (UNFCCC).

Reassuring as this may be, the universal challenge of climate change has grown to such proportions that urgent action to sharply cut carbon emissions is crucial, and all countries, including India, must act quickly. Intensive measures in key sectors — scaling up renewables to raise their share in the energy mix, greening transport, updating building codes and raising energy efficiency — will help meet the national pledge under the Paris Agreement to cut energy intensity of GDP by 33-35% by 2030, over 2005 levels.

At the global level, renewable sources of energy grew by 7% during 2018, but that pace is grossly insufficient, considering the rise in demand. Moreover, it was China and Europe that contributed the bulk of those savings, in large measure from solar and wind power, indicating that India needs to ramp up its capacity in this area.

In fact, as the founder of the International Solar Alliance, India should lead the renewables effort. Yet, in spite of falling prices and rising efficiency, the potential of rooftop solar photovoltaics remains poorly utilised. It is time State power utilities are made responsible for defined rates of growth in the installation of rooftop systems.

A second priority area is the cleaning up of coal power plants, some of which are young and have decades of use ahead. This process should be aided by the UNFCCC, which can help transfer the best technologies for carbon capture, use and storage, and provide financial linkage from the \$100 billion annual climate fund proposed for 2020. India's record in promoting green transport has been uninspiring, and emissions from fossil fuels and the resulting pollution are rising rapidly. The Centre's plan to expand electric mobility through financial incentives for buses, taxis and two-wheelers needs to be pursued vigorously, especially in the large cities.

Inevitably, India will have to raise its ambition on emissions reduction, and participate in the global stocktaking of country-level action in 2023. It has the rare opportunity to choose green growth, shunning fossil fuels for future energy pathways and infrastructure.

## GS World Team...

### Rooftop Solar Program

#### Reference

- Recently the Cabinet Committee on Economic Affairs under the leadership of Prime Minister, has approved the second phase of Rooftop Solar Program to achieve the cumulative capacity of 40,000 MW from Rooftop Solar (RTS) projects by 2022.

#### What is it?

- This program will be implemented with a total central financial assistance of Rs.11,814 crores.
- Central Financial Assistance (CFA) has been reconstituted for the residential area in the second phase of the program.
- Under this, 40 percent CFA will be provided for RTS systems has capacity of 3KW and 2010 CFA will be Provided for RTS systems has the capacity from 3 KW to 10 KW.
- In case of Group Housing Societies / Residential Welfare Associations (GHS / RAW), CFA will be restricted to 20% for RTS plants for power supply to the shared facilities.
- However, valid capacity of CFA for GHS / RWA will be limited to 10 kilowatts per house.
- Under this, the maximum capacity will be 500 KWP, which will include the capacity of RTS establish in individual houses under GHS / RAW.

- Under the housing category, CFA will be provided for capacity of 4000 MW and it will be made available on the basis of benchmark cost or tender cost, whichever is less.
- Central Financial Assistance will not be available for other categories like institutional, academic, social, government, commercial, industrial etc.
- Under the second phase of the program, focus will be on greater participation of distribution companies (Discom).

#### Benefit

- This program will have a significant environmental impact on carbon dioxide emissions in terms of savings.
- Considering the average energy production of 1.5 million units per MW, it is expected that by 2022, under the phase-2 of the program, the installation of solar Rooftop plants with capacity of 38 gigawatt (GW) will decrease the carbon dioxide emissions by around 45.6 tonnes.
- Apart from promoting self-employment through this program, by 2022, there is the possibility of creating an employment opportunity equal to 9.39 lakh jobs for skilled and unskilled workers for the capacity building of 38 GW under Phase-II of the scheme.

#### Expected Questions (Prelims Exams)

##### 1. Consider the following statements :-

- International Energy Agency was established in 1974.
- Under the United Nation Framework convention, Green climate fund is established

Which of the above statements is/are correct?

- (a) Only 1                      (b) Only 2  
(c) Both 1 and 2              (d) Neither 1 nor 2

#### Expected Questions (Mains Exams)

- Q. India needs to focus on which points to bring reduction in carbon emission? Discuss.  
(250 Words)

**Note:** Answer of Prelims Expected Question given on 29 Mar. is 1(d)